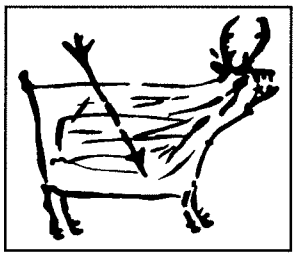
An Archaeological Survey of the Proposed White Mountain Estates Subdivision II Chalfant Valley, Mono County, California

Jeffery F. Burton

Trans-Sierran Archaeological Research
Contributions to Trans-sierran Archaeology No. 53
September 2004



An Archaeological Survey of the Proposed White Mountain Estates Subdivision II Chalfant Valley, Mono County, California

Jeffery F. Burton

Trans-Sierran Archaeological Research
332 East Mabel Street
Tucson, Arizona 85705

Prepared for:

Mono County Community Development Department
Post Office Box 347
Mammoth Lakes, California 93546

TSAR Project No. 84
Contributions to Trans-sierran Archaeology No. 53
September 2004

Management Summary

Trans-Sierran Archaeological Research has completed an archaeological survey of 70 acres in Chalfant Valley, Mono County, California, as part of environmental studies conducted for the Mono County Planning Department to determine the effect that the proposed White Mountain Estates Subdivision II would have on archaeological resources. During the course of the work seven archaeological sites and five isolates were recorded.

The prehistoric component of one of the sites (WME-6) may be a significant archaeological resource under the California Environmental Quality Act (CEQA). Testing, data recovery, or avoidance is recommended. The other six sites and the five isolates do not meet CEQA criteria for important historic resources, and no further archaeological work is recommended for these six sites, nor for the historic component of WME-6.

Table 1.
Summary of Recorded Sites.

Site Number	Site Type	Significant	Recommendations
WME-1	Homesite	No	None
WME-2	Ditch	No	None
WME-3	Millsite	No	None
WME-4	Dump	No	None
WME-5	Dump	No	None
WME-6	Prehistoric and historic artifact scatter	Yes*	Avoidance or Data Recovery*
WME-7	Dump(s)	No	None

* prehistoric component

Contents

Introduction

The proposed White Mountain Estates II project would entail the development of 39 homesites in the western portion of project area, in its first phase. Up to 18 additional homesites may later be designated in the eastern portion, but at least parts of that area will be left as open space. According to the project proponent, steep slopes, riparian areas, and other areas unsuitable for construction will be preserved as open space.

The survey was designed to identify archaeological resources within the project area as a first step in fulfilling California Environmental Quality Act (CEQA) requirements for determining and mitigating the effects of the project. This report discusses the methods and results of the archaeological work followed by management recommendations. For detailed background on the archaeology, ethnography, and history of the region, the reader is referred to Bettinger (1975, 1982, 1989), Burton (1996), Busby et al. (1979), Chalfant (1922), Liljelad and Fowler (1986), Steward (1930, 1933, 1934, 1938), and others (e.g. Bettinger et al. 1984; Bouscaren 1985; Nadeau 1950; Wright 1879).

Environmental Description

The project area is located in Chalfant Valley in southern Mono County, about six miles north of Laws, California (Figure 1). Legal description is T 5 S, R 33 E, encompassing 70 acres in the south half of the southeastern 1/4 of Section 22, MDBM. Chalfant Valley is an extension of Owens Valley, with the Volcanic Tablelands to the west and the White Mountains to the east.

The project area lies on the bajada and foothills of the White Mountains between Coldwater Canyon, little more than a mile to the south, and Piute Creek, about a mile to the north. There is a spring and a seep in the project area, and several other springs and seeps in the vicinity (Figures 2 and 3). Small ephemeral drainages flow, at least intermittently, toward the Owens River, about six miles to the south. Water from Coldwater Canyon is now piped into the Los Angeles Department of Water and Power's water system, and the North and South McNally Canals capture whatever surface runoff remains from Chalfant Valley.

Sediments in the project area are sands and gravels derived from the sedimentary, metamorphic, and plutonic rocks of the White Mountains, with some ash fall from volcanic activity in the region. The survey area, located between 1320 and 1400 m elevation, lies within the sagebrush scrub plant community. Dominant vegetation includes shrubs such as basin sagebrush (*Artemesia tridentata*), ephedra (*Ephedra* sp.), saltbush (*Atriplex* sp.), cholla (*Opuntia echinocarpa*), rabbitbrush (*Chrysothamnus* sp.), and grasses. Willows (*Salix* sp.) and rose (*Rosa* sp.) grow in small riparian areas at a spring and a seep. Many mature introduced species have been cultivated in the first White Mountain Estates subdivision, located just west of the current proposed project area.

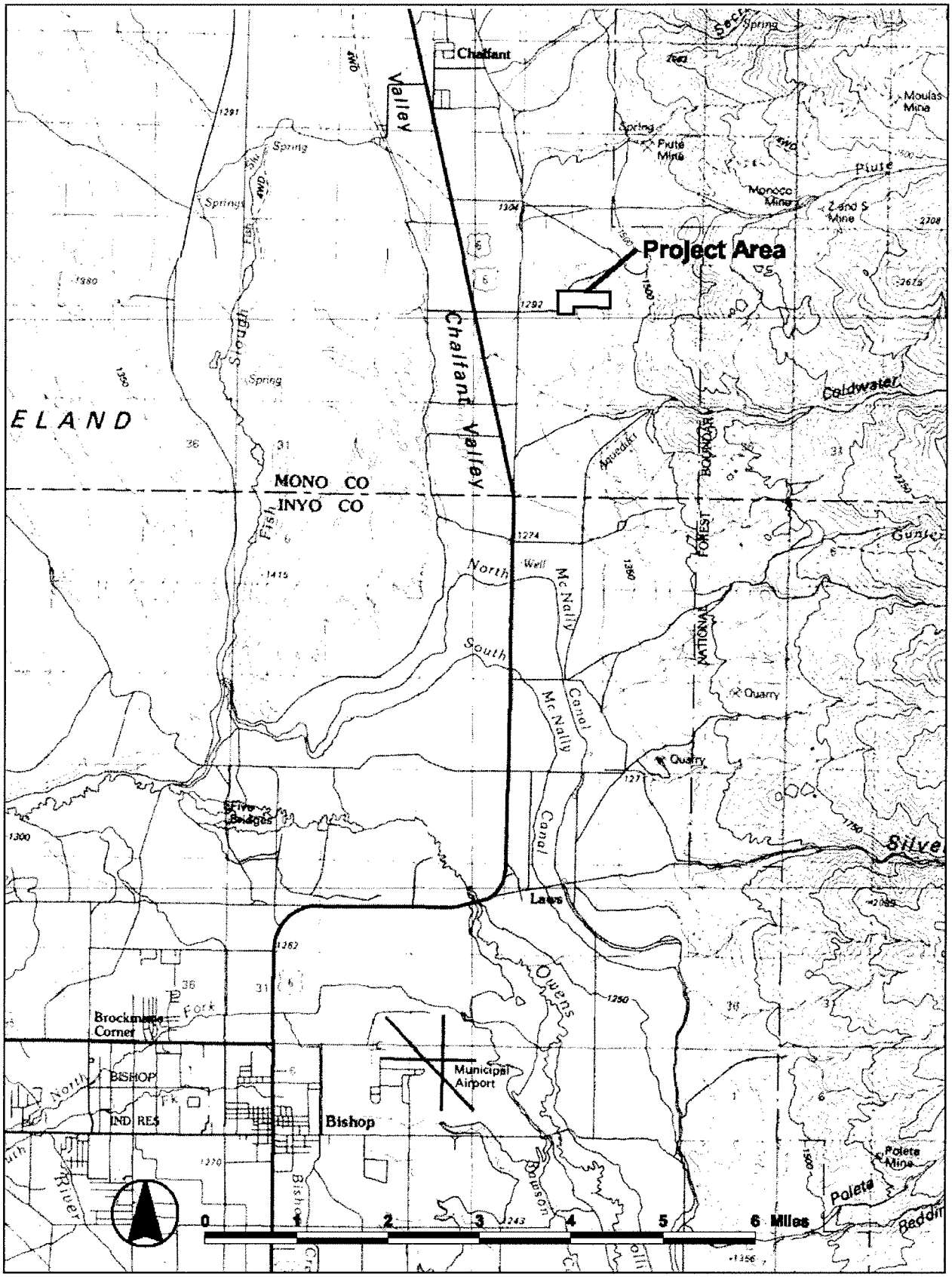


Figure 1. White Mountain Estates II Project location.

Fauna present in the vicinity today include: mule deer (*Odocoileus hemionus*), jackrabbits (*Lepus townsendii, L. californicus*), cottontail (*Sylvilagus nuttalii*), ground squirrels and mice (e.g., *Peromyscus*), mountain lion (*Felis concolor*), and coyote (*Canis latrans*). Antelope *(Antilocapra americana*) and bighorn sheep (*Ovis canadensis*) may have visited the area in the past.

The climate is semi-arid, with mild summers, cold winters, and about 8 inches of precipitation annually. Paleoclimatic data for the region have been compiled and summarized by Curry (1969), Mehringer (1986), and Bettinger (1982). Between 12,000 and 10,000 years ago, the Great Basin underwent rapid climatic changes: as alpine glaciers retreated, lakes shrank, and plants and animals moved to higher elevations (Mehringer 1986). From 10,000 to 8,000 years ago, there was a warming trend in the Basin; Mehringer postulates that this warming trend continued, reducing the effective moisture through 5000 years ago. Various researchers have found evidence that the hot and dry conditions of the "Altithermal" may have prevailed up until 3,000 or 4,000 years ago, after which cooler temperatures and variable moisture were dominant until the late 19th century (Busby et al. 1979:36). Curry cites evidence for neoglacial periods between 2700 and 2000 years ago, a relatively dry period between A. D. 800 and 1300 (except for some short periods of heavy precipitation between A. D. 900 and 1100), and glacial advances between A. D. 850-1050, A. D. 1550-1700, and 1750-1895.

Cultural Background

The following cultural chronology, based on time-sensitive projectile points, has been proposed by Bettinger (1982:89-92) for the Inyo-Mono region:

> Mohave complex (pre-3500 B.C.) – indicated by Mohave, Silver Lake, and Great Basin Transverse projectile point assemblages.
>
> Little Lake Period (3500 to 1200 B.C.) – indicated by Little Lake and Pinto series projectile points and Humboldt Concave-base bifaces.
>
> Newberry Period (1200 B.C. to A.D. 600) – indicated by Elko series projectile points.
>
> Haiwee Period (A.D. 600 to 1300) – indicated by Eastgate and Rose Spring series ("Eastgate") projectile points and Humboldt Basal-notched bifaces.
>
> Marana Period (A.D. 1300 to historic) – indicated by Cottonwood and Desert Side-notched projectile points and Owens Valley Brown Ware ceramics.

Information compiled from the various excavations and surveys provides a glimpse of lifeways during these periods. Mohave complex and earlier sites are limited to two sites in Long Valley,

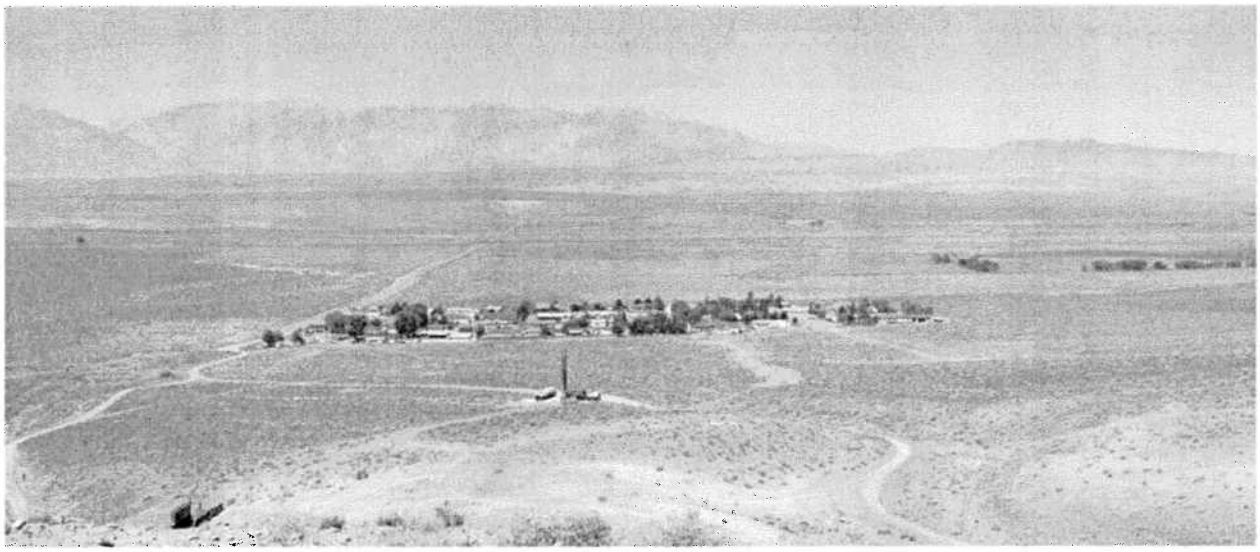


Figure 2. Overview of project area, view towards west.

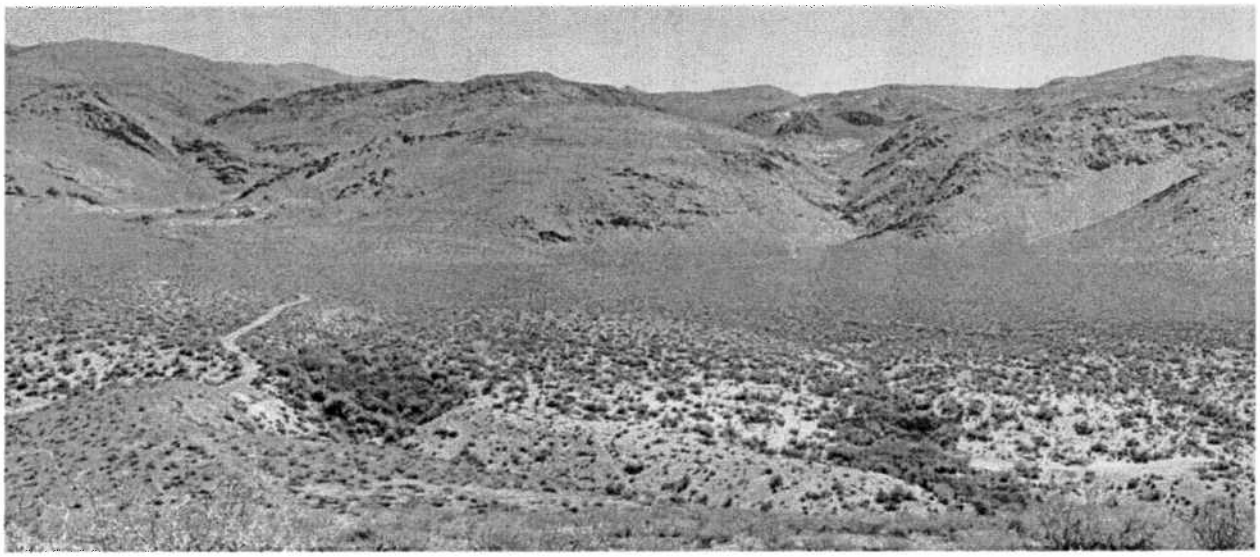


Figure 3. Seep (left) and spring (right) within project area, view to east.

a few sites at Mono Lake and Owens Lake, and isolated points found in surface contexts. The Little Lake period is characterized by high mobility; free-ranging groups maintained base camps near riparian areas, and made frequent use of temporary camps. Sites dating to this period are generally sparse, with a narrow artifact assemblage consistent with use by highly mobile groups. Structures and associated artifacts at Newberry period sites suggest use as seasonal base camps or temporary hunting camps. Flaked stone tool types became standardized and ground stone artifacts became formalized and diverse. Haiwee period sites are dominated by casual flaked stone tools and shaped ground stone artifacts. There appears to be increasing settlement centralization during the Haiwee period, and a shift towards intensive land use focused on increased use of small animals and plants. The trend towards intensifying land use continued in the Marana period, with

some villages occupied essentially year-round. Also during the Marana period there is a greater shift to expedient technologies with the introduction of casual ground stone types.

Background research was conducted through the Eastern Information Center of the California Historical Resources Inventory System (CHRIS), located at the University of California, Riverside (Appendix A). Their records indicate that no surveys or sites have been recorded within one-half mile of the project area. However, along Piute Creek, 1 mile to the north, ten historic-period sites have been recorded (Burton 1984; Portillo and Weaver 1980), and in Coldwater Canyon 1 mile south, nine historic (all mining-related) and one prehistoric site have been recorded (Burton 1985).

The project area lies within the Piute Mining District, established in 1873, which included the west slope of the White Mountains from Birch Creek to the north to Silver Canyon Creek to the south (*Inyo Register*, August 23, 1873). One of the major mines of the district was the Southern Belle Mining Group, located a mile and a half to the southeast of the project area. The road currently signed as the road to White Mountain Estates is named Tungsten Road on the most recent United States Geological Survey (USGS) maps, suggesting that at least some of the many small prospects, borrow pits, and larger waste dumps on the slopes above the project area are related to tungsten mining. Mining for tungsten, used in military and industrial applications, increased during World Wars I and II and during the Korean conflict. In 1955, there were more than 740 tungsten mines operating in the United States, many to the southwest of the project area in Inyo County. In 1956, the government withdrew tungsten price supports and most of the tungsten mines in the U.S. closed.

The project area land was patented by Charles N. Gifford in 1919 and 1930 (http://ftp.rootsweb.com/pub/usgenweb/ca/mono/land/mono.txt). Gifford was born in 1875, according to his Mono Co. draft registration (http://ftp.rootsweb.com/pub/usgenweb/ca/mono/military/monodraft.txt). Various editions of USGS maps provide information about historic features that could be expected in the project area. The 1913 Bishop 30' topographic map depicts roads in the project area, but no structures (Figure 4). The 1947/1951 Bishop 15' topographic map shows one structure, but fewer roads (Figure 5). The 1976-79/1984 Laws 7.5' provisional map shows two ruins, depicted as open boxes. (The ruins, and other features, were recorded as site WME-1, described below.) The U.S. Department of Agriculture Forest Service's 1993/1994 Laws 7.5' map, which is based on the provisional map, shows the two ruins as closed boxes. Closed boxes generally indicate standing structures, but this change is likely a mistake. The subdivision roads are depicted on the 1984 and 1993 maps, and the subdivision houses themselves are visible in the 1999 aerial photograph. That same aerial photograph shows no buildings at site WME-1.

Current developments in the project area include roads, a water tank, and a spring development. Water from the spring on the parcel is piped to corrals located south of the parcel. The White Mountain Estates subdivision lies to the west.

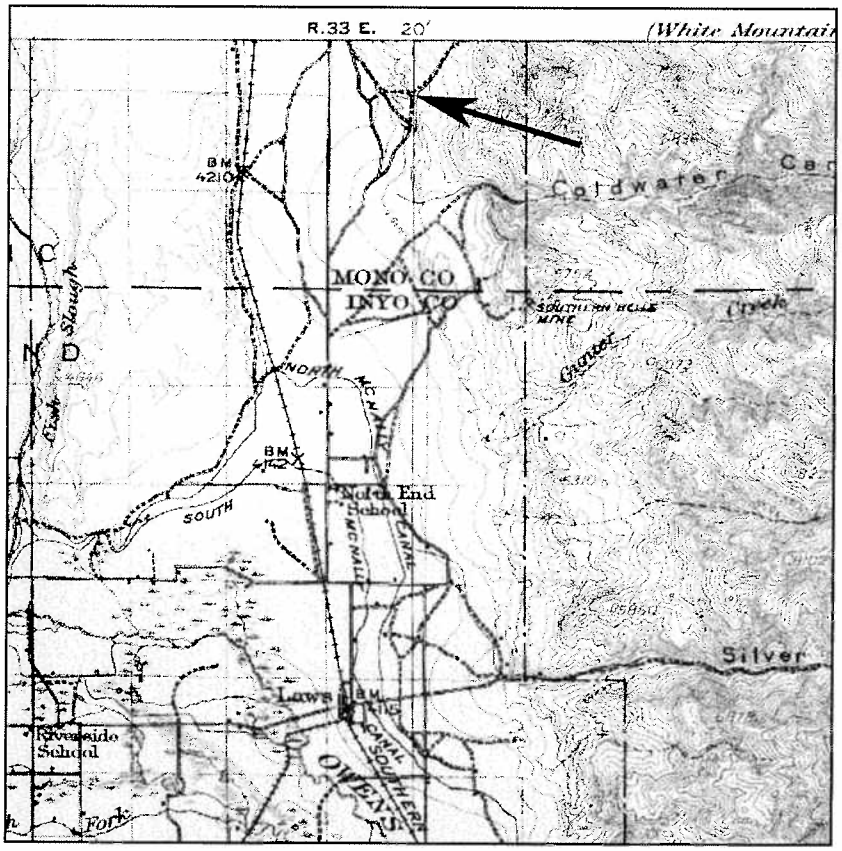


Figure 4. Detail of 1913 USGS 30' map Bishop, California; project area at arrow.

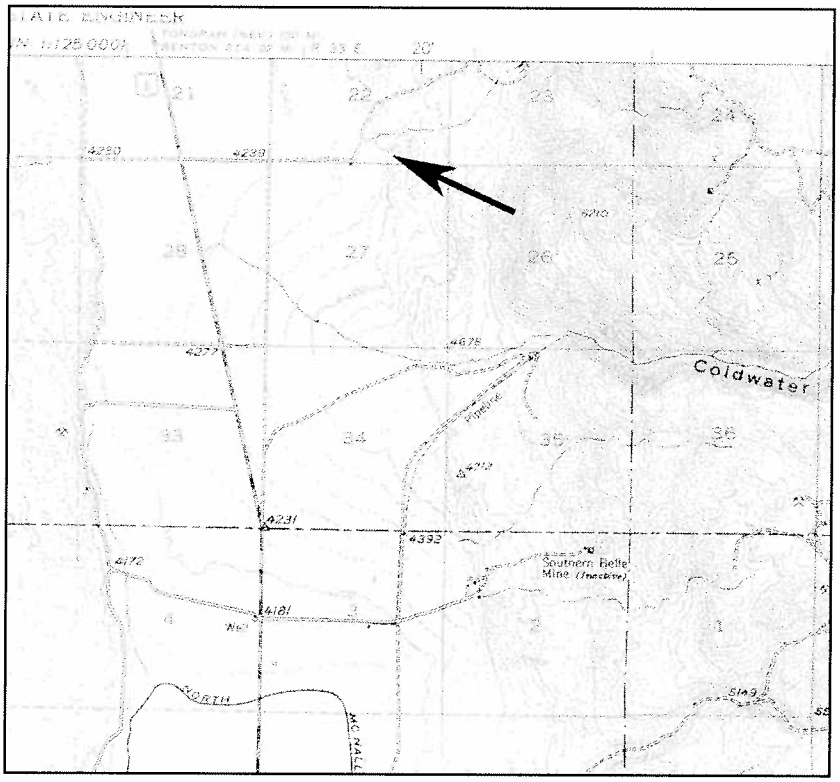


Figure 5. Detail of 1951 USGS 15' map Bishop, California; project area at arrow.

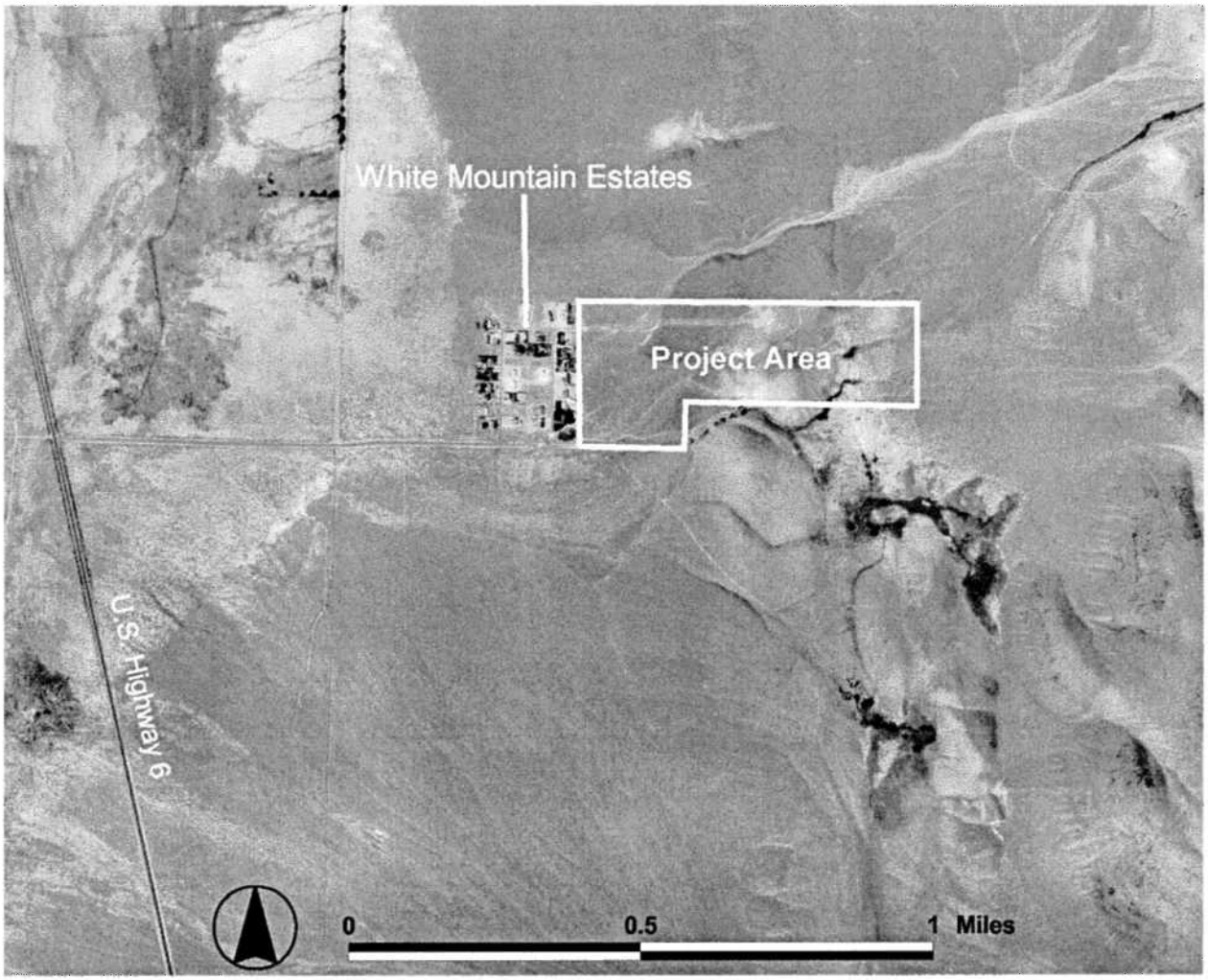


Figure 6. White Mountain Estates II project area and survey coverage.

Field Investigations

Archaeological field work, totaling four person-days, was conducted July 26 and 31, 2004. Seventy acres were surveyed (Figure 6). The survey area was walked at 30 m intervals along north-south compass bearings. Following initial survey, discovered sites were returned to and recorded, which included completion of site records based on the California Historical Resource Inventory System, plotting with a Trimble Global Positioning System receiver, mapping, photography, and detailed artifact inventory.

Results

Six historic sites, one dual-component prehistoric-historic artifact scatter, and five isolates were located in the project area (Figure 7). All of the historic sites, which include one homesite, one millsite, a ditch, and four trash dumps or trash scatters, are likely related to the post-WWII tungsten boom, and probably represent the same occupation.

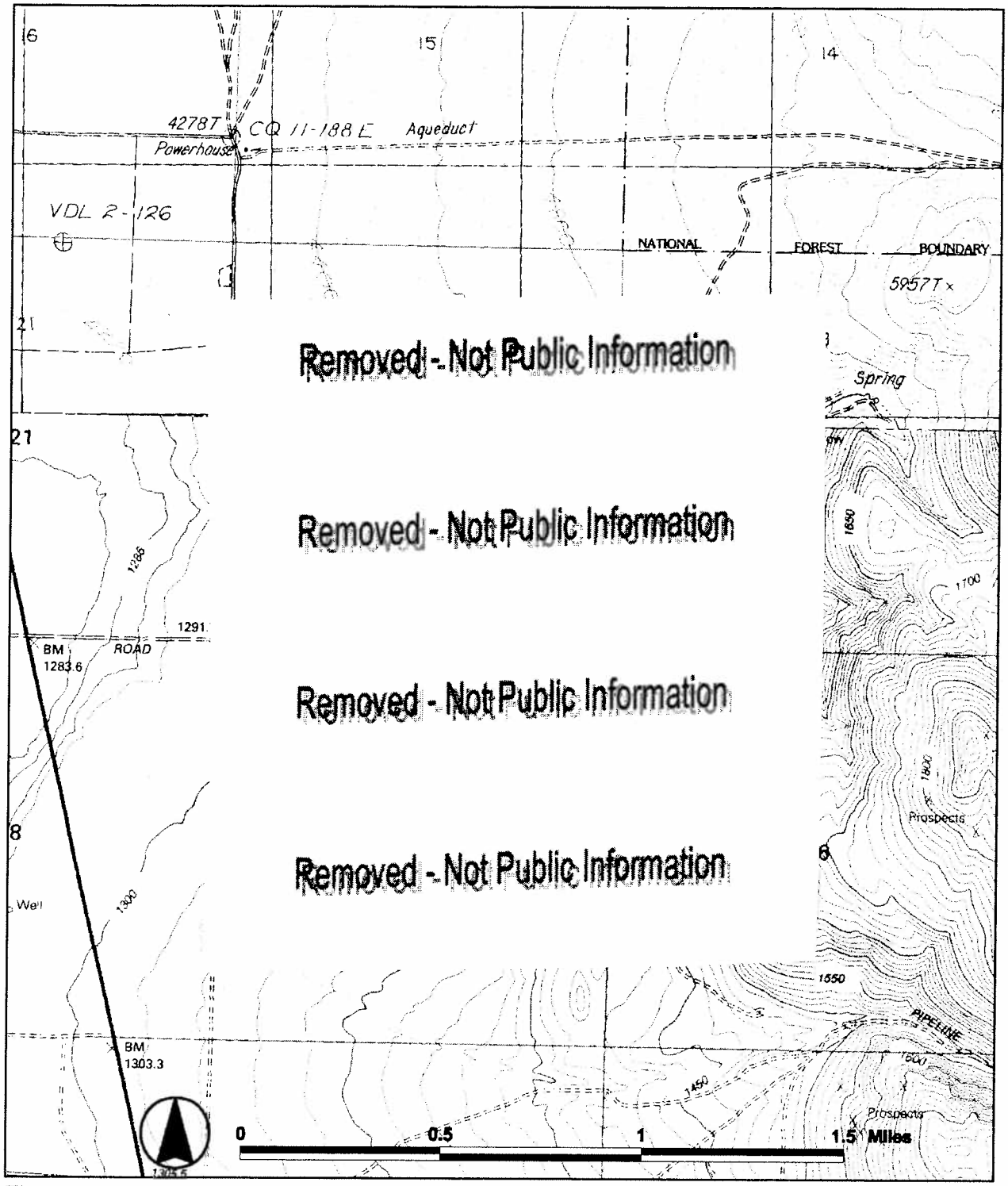


Figure 7. Archaeological site locations (adapted from USGS 7.5' maps: Laws and Chalfant Valley, California, 1994).

WME-1

This homesite measures 225 m east-west by 175 m north-south, comprising a total of about 23,950 square meters (6 acres). Part of the site is in the southwestern corner of the survey parcel

and extends to the south and west beyond the project boundary. The site is within the parcel of land patented by Charles N. Gifford in 1919. One structure is depicted on the 1947/1951 USGS map, and that structure and another within the site boundary are shown as ruins on the 1976-79/1984 USGS map . The site as recorded includes the remains of at least three structures, and nearly all of the artifacts post-date WWII. Evidence of Gifford's earlier occupation and development, which would have been required for the patent, has apparently been obscured by this later occupation. Although most of the site is outside of the current project area, the entire site was recorded in order to evaluate it against the CEQA criteria for an important site.

Twelve features (A-L) were designated at the site, four within the project area and eight to the south. Other features at the site include fenceposts, downed fences, dead trees, and furrows (Figures 8-11). A ditch through the site was recorded as a separate site (WME-2). There are thousands of artifacts at the site, scattered and in concentrations. Most appear to date to the 1950s, but some artifacts (e.g. a few fragments of sun-colored amethyst glass) were manufactured earlier.

Feature A is a 18-by-40-ft concrete slab with a rock and concrete perimeter foundation, open on the east end. The west end is below the present ground surface. Artifacts in the vicinity of Feature A include lumber, chicken wire, corrugated sheet metal, nails, green glass, screen, wire, canning jar liner fragments, Copenhagen lids, two cold cream jars (CHEESEBROUGH-PONDS INC/14/8), and a bottle base with a Northwest Glass Company mark used after 1931).

Feature B is a 30-by-30-ft leveled area, possibly a building pad. Artifacts at Feature B include lumber, window glass, nails, electrical porcelain, amber and clear bottle glass, sanitary seal cans, a pocket tobacco can, a milk can, barbed wire, a canning jar lid, and cow bone. There is a concrete footer and fence post debris to the east of Feature B.

Feature C is an L-shaped rock berm, a fence post, and two footings.

Feature D is a concrete foundation remnant, lumber, and other debris, with lumber, nails, fencing, pipe, stove parts, and amber glass fragments. This feature is located where a structure is depicted on the 1947/1951 USGS map.

Feature E is a trash scatter around a tamarisk tree. Artifacts at Feature E include lumber, window glass, concrete, sewer pipe, barbed wire, corrugated sheet metal, and amber, green, and clear glass fragments. A bottle base has the Hazel Atlas Glass Co basemark and a 1952 date code.

Feature F consists of lumber and other debris. Artifacts at Feature F include lumber, a truck hood, a tire, car window glass, paint cans, sheet metal, a galvanized metal bucket, and clear and aqua glass fragments. Basemarks identified included

Figure 8. Feature A at site WME-1.

Figure 9. Feature D at site WME-1.

Figure 10. Feature F at site WME-1.

Figure 11. Fenceposts at site WME-1.

Glass Containers Inc (1945+) and TABLE PRODUCTS INC/ LOS ANGELES.

Features G and H are trash scatters. Feature G artifacts include sanitary seal cans, coffee can, milk cans, a lard can, amber glass fragments, a shoe sole, and blue/white ceramic fragments. A bottle base has the mark used by the Owens Bottle Co between 1911 and 1929. Feature H artifacts include a tire, a ceramic coffee cup, other ceramics, lumber, nails, barbed wire, other fencing, 50+ cans (sanitary seal food, milk, meat, fuel, pocket tobacco), hundreds of glass fragments (amber, aqua, clear, green, blue, and sun-colored amethyst [n=2]), can and jar lids, concrete debris, a water heater, a metal band, yellow plastic, an aluminum cap, window glass, and half of a automobile license plate. Basemarks include the Owens Illinois Bottle Co (with a 1948 date code), and Ball (ca. 1915-1969).

Feature I is a cobble concentration.

Feature J includes two rock piles.

Feature K: a square hole, possibly a privy pit.

Feature L consists of two trash piles, a large rock pile, and scattered trash. Artifacts at Feature L include sanitary seal cans, coffee cans, milk cans, a paint can, a pocket tobacco can, amber, clear, white, and blue glass fragments, ceramic fragments, a buckle, nails, wire cable, cast iron parts/fragments, and other metal scraps and parts. Glass embossments include Glass Containers Inc (1945+), Brockway Glass Co (1933+), Latchford Marble Glass Co (with a 1951 date code), Anchor Hocking Glass Co (with a 1958 date code), Owens Illinois Bottle Co. (1929-1954), WHITE MA(GIC), and a reddish "Royal Ruby" soda bottle (NO DEPOSIT NO RETURN).

Artifacts noted in other areas of the site include wire, mattress springs, a sun-colored amethyst bottle fragment, Coke bottle fragments, an enameled metal pan, aqua canning jar lid and liner fragments (BOYD'S GENUINE PORCELAIN LINED CAP/7), Copenhagen snuff can lids (post-1937), ceramics, a butter knife, a small pulley, soft-top beverage cans, milk cans, ABS pipe, concrete, and a bottle base with a Glass Containers Inc mark and a 1954 date code.

WME-2

This site is a ditch which crosses the southern part of the project area from east-northeast to west-southwest. The ditch, which currently totals about 1,080 ft (330 m) in length, is fairly intact within the project area but has been truncated on both ends by subsequent development. On the eastern, upper end, it has been obliterated by modern developments and a parking area. On the western end, beyond the proposed project area, the ditch ends abruptly, and once may have continued as a dirt ditch now silted in. The ditch is about 10 to 12 inches wide and 10 to 12 inches deep, with the bottom lined with cement and the sides lined with vertically set stone slabs (Figures 12 and 13). The ditch has silted in with two or three inches of slopewash. Presumably the ditch once carried water from the spring located 1/4 mile northeast, but the spring is now tapped and piped to provide water for horses, chickens, and trees in the canyon to the south of the project area.

WME-3

This former millsite is located in an area 45 meters in diameter on a moderately steep slope at the southern edge of the project area. Features include a wooden loading chute and machinery foundations, machinery debris, and scattered lumber and building materials (Figures 14 and 15). The wooden loading chute, at the top of the slope, is constructed of large lumber and planks. A road provides access to the top of the chute. Below the wooden chute is a sloping concrete slab, apparently also a chute, which leads down to three concrete platforms, two with poured-concrete retaining walls. The platforms have bolts and lumber suggesting where machinery was anchored. Abundant debris at the site includes corrugated metal sheathing, galvanized and rusty sheet metal and stove pipe, angle iron, a small wooden trough or chute, a metal drum, oil cans, some scattered lumber, and galvanized pipe. The millsite may be related to the tungsten mining suggested by the name of the nearby road; it could have been a small operation related to the tungsten boom during World War II and the early 1950s.

Figure 12. Ditch (WME-2) with parking area to east.

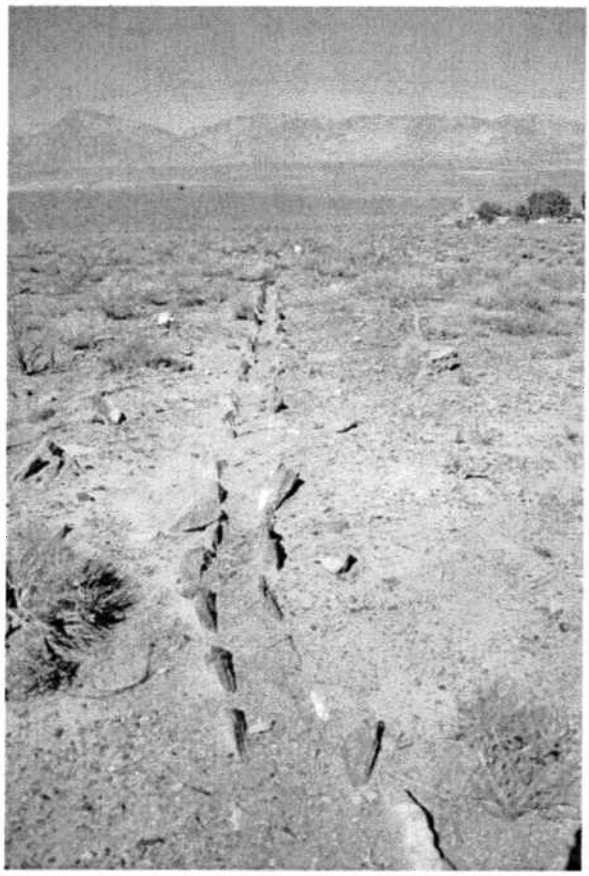


Figure 13. Ditch (WME-2), view to west.

WME-4

This trash dump, consisting of four small concentrations of trash within an area about 40 m E/W by 40 m N/S (1225 square meters) is located around the intersection of a road and a bulldozer path (Figure 16).

Locus A consists mostly of glass bottles, jars, and fragments (approx. 1000; clear, amber, green, blue). Basemarks recorded include Glass Containers Inc (1945+), Hazel Atlas Glass Co. (1920-1964), Owens Illinois Bottle Co (1929-1954 with 1, 2, 3, and 4 date codes), Duraglass (1940+), Maywood Glass Co (with a 1951 date code), Best Foods (1930+), Haas Baruch & Co., Alexander H. Kerr & Co (1944+), and Vicks Vaporub.

Locus B includes fencing and tin sheets with embossed patterns. To the north there are several large pieces of a heater.

Locus C includes mostly metal artifacts. Cans (n=50) include sanitary seal food, milk (embossed "PUNCH HERE" and measuring 2 15/16" x 3 7/8" and 2 ½" x 2 3/8"), coffee (Don Francisco's), paint, meat, motor oil, church-key-opened

Figure 14. Overview of WME-3, view to northeast.

Figure 15. Wooden loading chute at WME-3.

beverage cans (Eastside Beer), and an aluminum can top. Other metal artifacts include a bottle cap, a pie pan, tricycle handle bars, an enameled metal cup, a bolt, a metal hoop, corrugated and flat sheet metal, metal strips, stove pipe, a belt buckle, a 6-inch hinge, a metal barrel top, nails (n=25), ten bundles of wire, a metal filter cover, and half of a sunglasses frame. Other artifacts include shoe parts, lumber fragments, a blue plastic pan, and 25 ceramic fragments. One ceramic has a Homer Laughlin backstamp with a 1941 date code.

Locus D is a small trash pile including two church-key-opened beer cans, two sanitary seal cans, five crown bottle caps, a mouse trap spring, smooth wire, white glass fragments, about 100 nails, two fence staples, a window pulley, a window latch, a plain white ceramic with an embossed design, two metal straps, a bolt, a Copenhagen lid, a plastic tube cap ("L R Co"), charcoal bits, and wood fragments.

The different loci likely represent various casual dumping episodes of household trash from a nearby habitation, possibly the homesite at WME-1. The structural materials (corrugated metal, heater parts, lumber fragments) are not numerous enough to suggest that a demolished structure once stood at this site, and are likely trash from remodeling or demolition of a structure elsewhere. Dates suggest the trash was deposited mainly in the 1950s, but some artifacts, such as the aluminum-top beverage cans, indicate later deposition.

WME-5

This small dump is located in the southeast part of the survey parcel, below a road shown on the USGS map; the dump measures 15 m in diameter, for a total area of about 155 square meters. It includes a sanitary seal food can, two round key-opened meat cans, two rectangular meat cans, a milk can (2¼" x 3½"), an aqua mason jar base and five aqua body fragments, and a baby or doll carriage wheel. The small size of the dump, its location on a slope below a road, and the almost exclusively food-related artifacts suggest a one-time dumping of household trash, probably in the mid-twentieth century.

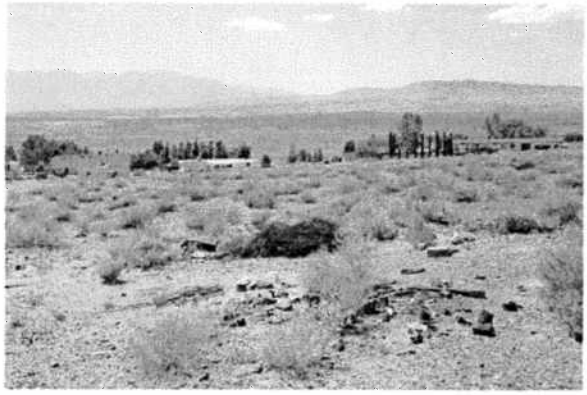


Figure 16. Overview of site WME-4, view towards the west.

Figure 17. Overview of site WME-6, archaeologist is at prehistoric flakes scatter.

WME-6

This site, located in an entrenched drainage below a seep and riparian area, includes two distinct loci, one with prehistoric artifacts and one with historic artifacts (Figure 17). The historic artifacts, most of them in and around a leveled area immediately adjacent to the seep, include three pieces of broken concrete pipe, two mostly buried metal barrel hoops (1½ inch wide, 18-24 inch diameter), an aluminum auto or truck siding strip (3 by 72 inches), over a hundred light green glass fragments, fifteen or more white "oven-proof" glass fragments, and ten clear glass fragments. The artifacts appear to be a mix of casual trash and, perhaps, remnants of an attempt to develop the water source of the seep.

The prehistoric artifacts, located on a small bench southwest of the seep and west of the historic trash scatter, include 20 obsidian flakes and a fragment of micaeous schist, possibly a handstone fragment. Six of the flakes show evidence of utilization, one is a biface retouch flake, and the remaining thirteen are unmodified (six complete, seven fragments). Material types identified were five black opaque (Casa Diablo), two gray opaque (Casa Diablo), 11 clear (Queen, one with cortex), and two brown/clear banded (likely from the Queen source). No temporally diagnostic artifacts were observed, but the flakes could yield chronometric data through obsidian hydration analysis. Although the total number of flakes observed is small, the relatively high percentage of utilized flakes suggests the inhabitants were making use of riparian resources (or water itself) at the seep; the presence of obsidian from two distinct and distant sources suggests a fairly wide territory or travel area for the inhabitants.

WME-7

This long-used informal trash dump, spread over about 2 acres near the intersection of two unnamed dirt roads, includes thousands of artifacts, most located outside the project area. Most of the artifacts are domestic trash and structural debris dating from the 1950s into the 1970s, but some of the trash (especially at Loci C and H) dates to the first half of the 20th century. Eight loci were designated at the site (A-H), with A, B, C, and G outside the project area, and D, E, F, and H within.

Figure 18. Locus A at site WME-7.

Locus A covers 700 square meters on the north side of a dirt road and comprises numerous concentrations (Figure 18). Artifacts consist of sanitary seal cans, juice cans, aluminum sardine cans, all-aluminum beverage cans, canning jar rims, Copenhagen lids, shoe polish cans, wire, a spring, corrugated sheet metal, electrical porcelain, whiteware and yellow ware ceramics, fiesta ware fragments, clear, aqua, amber, green and blue glass fragments, one sun-colored amethyst glass fragment, painted milk bottle fragments, a painted label "gasket leak repair" jar, a drinking glass fragment with white painted design, shoes, an inner tube, garden hose, lumber, concrete cinder blocks/fragments, window screen, and cow bone. Glass basemarks include Owens Illinois Bottle Co (with 1946 [soda], 1947, 1965, 1966, 1968, and 1969 date codes), Duraglas (1940+), Latchford-Marble Glass Co (1939-1957), Latchford Glass Co (1957+), Thatcher Glass Manufacturing Co (1900+), Glass Containers Inc (1945+), Maywood Glass Co (ca. 1940+), PUREX, and Hazel Atlas Glass Co (1920-1964).

Locus B covers 475 meters on the south side of the dirt road. It includes lumber

piles, sanitary seal, metal, and church-key-opened beverage cans, soft-top cans, aluminum pull tabs, aluminum sardine cans, jar lids, metal parts, clear, amber, and green glass, a plastic fork, ceramics, window screen, cow bone, concrete, metal water pipe, and salt-glazed sewer pipe. Glass basemarks include Anchor Hocking Glass Co (with a 1962 date code), Owens Illinois Bottle Co (with 1954 and 1964 date codes), Duraglas (1940+), Ball ca. 1915-1969), and Canada Dry (1890+).

Locus C is a single concentration covering about 100 square meters. It includes two sanitary seal cans, four pocket tobacco cans, a zinc canning jar lid, a corset part, wire, hundreds of aqua canning jar and whiskey bottle fragments, an aqua bottle base with an American Bottle Co basemark.(1905-1929), about 100 clear glass fragments, 100 window glass fragments, 20 sun-colored-amethyst glass fragments, ten blue glass fragments, a few amber glass fragments, lamp chimney glass fragments, canning jar lid liner fragments, 30 plain whiteware ceramic fragments (bowl, coffee cup, and plate fragments), and ten cylindrical stoneware jar fragments. Many of the artifacts date to the early decades of the twentieth century, but Locus C also includes recent manure piles.

Locus D includes sparse scatter of sewer pipe, amber and clear glass, and stoneware fragments.

Locus E is a a 4-m-diameter trash scatter that includes a sanitary seal can, six coffee can lids, two pocket tobacco cans, wire, metal parts, white and clear glass (n=25), and ceramic fragments (n=25).

Loci F and G are both are sparse scatters of lumber.

Locus H is a 3-m-diameter trash scatter that includes 100 whiteware and yellow ware ceramic fragments, 100 white glass fragments, 50 aqua glass fragments, a few amber glass fragments, a turned-pink (1915-1930) drinking glass with an angel on the base, window glass, a can lid, and dry-cell battery parts. To the east of Locus H there is a ceramic fragment with a Homer Laughlin "Hudson" backstamp (ca. 1900-1919).

Isolates

The five isolates, found in and near the project area, do not meet California Historic Resource Inventory definitions for a site. They include (Figure 19):

1. Rusted paint can and broken beer bottle with a possible 1981 date code.
2. Small rock ring and pocket tobacco can, at the edge of a drainage (Figure 20).
3. Utilized translucent-cloudy obsidian flake, possibly of Mono Glass Mountain obsidian.

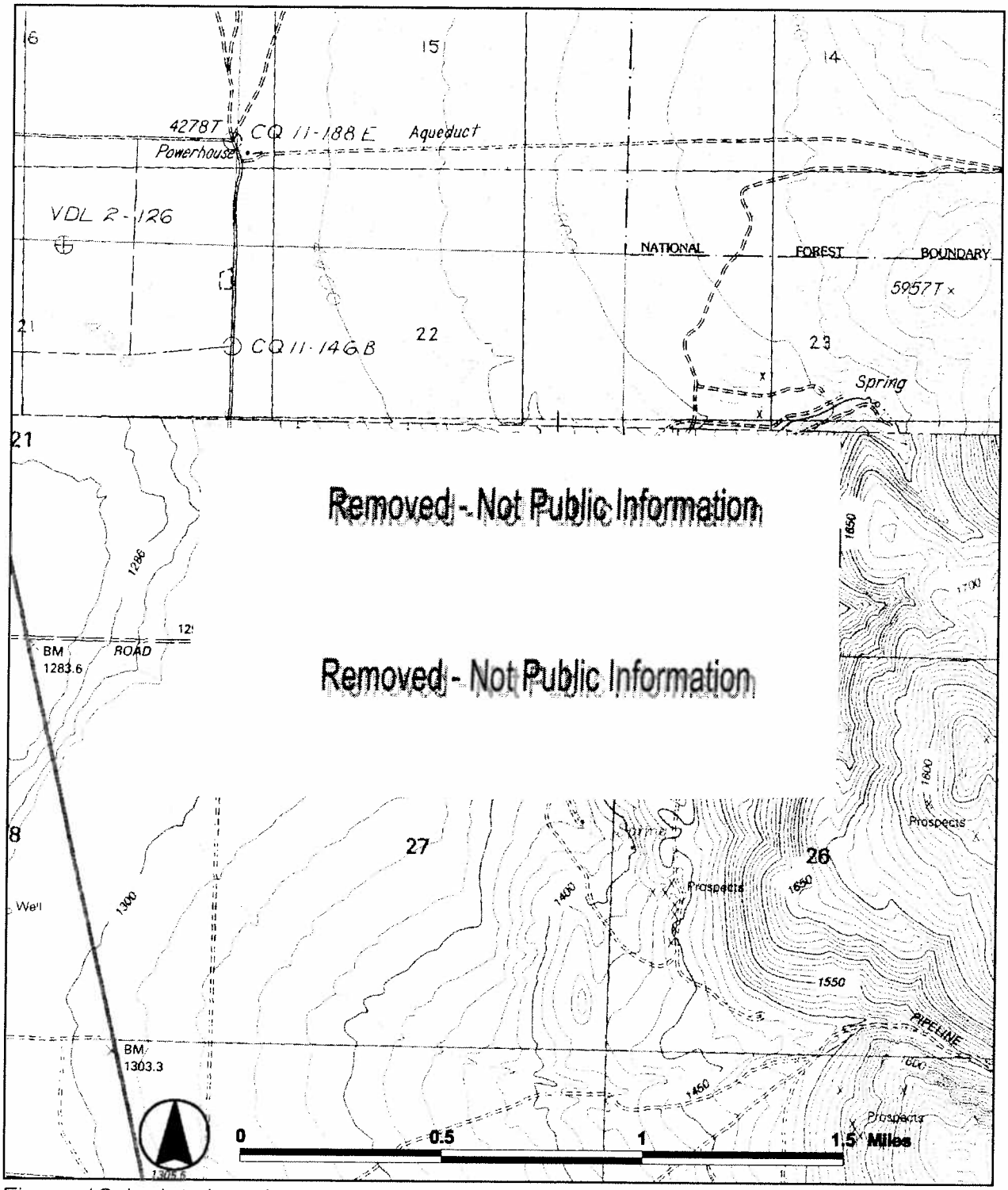


Figure 19. Isolate locations (adapted from USGS 7.5' maps: Laws and Chalfant Valley, California, 1994).

4. Biface margin fragment of black opaque (Casa Diablo) obsidian, within historic site WME-1.
5. Utilized flake fragment of black opaque (Casa Diablo) obsidian, within historic site WME-1.

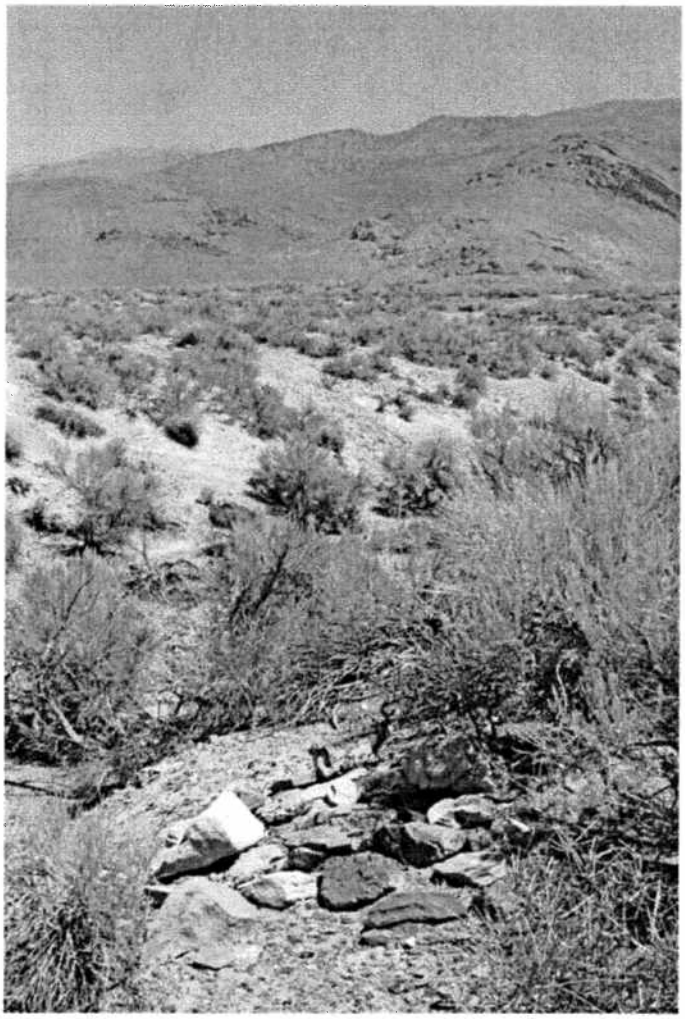


Figure 20. Rock ring at edge of drainage (Isolate 2).

Significance

The legal guidelines for evaluation and management of archaeological sites on private land are contained in the California Environmental Quality Act (CEQA). To determine whether a site is significant according to CEQA criteria, it is necessary to apply the evaluation framework contained in Appendix K, which states:

III. If the Lead Agency determines that a project may affect an archaeological resource, the agency shall determine whether the effect may be a significant effect on the environment. If the project may cause damage to an important archaeological resource, the project may have a significant effect on the environment. For the purposes of CEQA, an "important archaeological resource" is one which:

A. Is associated with an event or person of:

1. Recognized significance in California or American history, or

2. Recognized scientific importance in prehistory;

B. Can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable archaeological research questions;

C. Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind;

D. Is at least 100 years old and possesses substantial stratigraphic integrity; or

E. Involves important research questions that historical research has shown can be answered only with archaeological methods.

IV. If an archaeological resource is not an important archaeological resource, both the resource and the effect on it shall be noted in the initial study or EIR but need not be considered further in the CEQA process.

The prehistoric component of site WME 6 appears to meet CEQA criteria A and B, and possibly criterion D. It is associated with the early occupation of the region, an "event" of recognized scientific significance in California prehistory (criterion A). Through obsidian hydration analysis, the artifacts present could provide chronometric data useful in addressing archaeological research questions (criterion B). The site is at least 100 years old, but subsurface testing would be needed to determine if it possesses substantial stratigraphic integrity (criterion D).

On the other hand, none of the historic sites nor the historic component of WME-6 meets the CEQA criteria for an important site. WME-1 and -3 appear to be a home site and mill site associated with tungsten mining, which was an important 20th-century economic activity in the region. Sites WME-2, -4, -5, -7, and the historic component of WME-6 also are related to tungsten mining and development of Chalfant Valley. However, the research potential of the historic sites has been exhausted by the recording completed during this survey. The mill and homesite in the project area are not unique, and appear to represent very insignificant production, especially compared to the large underground mine at the Pine Creek Tungsten Mill at Rovana, located 20 miles to the west. Neither site can provide information of demonstrable public interest beyond that already recorded (criteria B and E); neither has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind (criterion C); and neither is at least 100 years old with substantial stratigraphic integrity (criterion D). Likewise, the 20 th century trash scatters at sites WME-4, -5, -6, and -7 do not meet CEQA criteria.

Management Recommendations

The only important archaeological resource that could be affected by the proposed project is the prehistoric component of WME-6. Avoidance of important archaeological sites is the preferred treatment recommended in Appendix K of the California Environmental Quality Act (CEQA). Because WME-6 is located in a drainage near a seep, avoidance and protection may be most feasible, because the site area is not a likely building area. If avoidance is not possible, Appendix K of CEQA provides treatment options:

> If avoidance of the important archaeological resources is not feasible, the lead agency should include (require) an excavation plan for mitigating the effect of the project on the qualities which make the resource important under Section III (Section V). Section V also outlines some requirements for excavation plans, and notes that excavation as mitigation shall be concentrated in those areas of the site that would be damaged or destroyed as a result of the project. Section V(D) notes that an excavation plan shall not be necessary if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the resource; this determination must be documented in the Environmental Impact Report (EIR). Finally, a lead agency may require a mitigation plan to be carried out as a condition of approval of the project (Section V[D]).

The excavation plan, if necessary, should include artifact morphological analyses and obsidian hydration and sourcing, as well as subsurface testing.

References Cited

Bettinger, Robert L.

1975 The Surface Archaeology of Owens Valley, Eastern California: Prehistoric Man-land Relations in the Great Basin. Ph.D. dissertation, Department of Anthropology, University of California, Riverside.

1982 Archaeology East of the Range of Light: Aboriginal Human Ecology of the Inyo-Mono Region of Central-Eastern California. *Monographs in California and Great Basin Anthropology* 1. Davis, California.

1989 The Archaeology of Pinyon House, Two Eagles, and Crater Middens: Three Residential Sites in the Owens Valley, Eastern California. *Anthropological Papers of the American Museum of Natural History* 67. New York.

Bettinger, Robert L., Michael Delacorte, and Kelly R. McGuire

1984 Archaeological Excavations at the Partridge Ranch Site (CA-INY-2146), Inyo County, California. California Department of Transportation, Sacramento.

Bouscaren, Stephen J.

1985 Archaeological Excavations in the Lowlands of Northern Owens Valley: Report on the Sawmill Road Site (CA-INY-1386). M.S. thesis, Department of Anthropology, University of California, Riverside.

Burton, Jeffery F.

1984 An Archaeological Survey of the Upper Piute Creek Hydroelectric Project, Mono County, California. *Contributions to Trans-sierran Archaeology* No. 8. Trans-Sierran Archaeological Research, Tucson.

1985 An Archaeological Survey of the Coldwater Canyon Hydroelectric Project, Mono County, California. *Contributions to Trans-sierran Archaeology* No. 9. Trans-Sierran Archaeological Research, Tucson.

1996 Three Farewells to Manzanar: The Archaeology of Manzanar National Historic Site. *Western Archeological and Conservation Center Publications in Anthropology* 67. National Park Service, Tucson, Arizona.

Busby, Colin I., John M. Findlay, and James C. Bard

1979 *A Cultural Resource Overview of the Bureau of Land Management Coleville, Bodie, Benton, and Owens Valley Planning Units, California.* Cultural Resources Publications, Bureau of Land Management, Bakersfield, California.

Chalfant, W. A.

1922 *The Story of Inyo.* Chalfant Press, Bishop, California.

Curry, R.R.

1969 Holocene Climate and Glacial History of the Central Sierra Nevada, California. In "United States Contributions to Quaternary Research," edited by S.A. Schumm and W.C. Bradley. *Geological Society of America Special Paper* 123.

Liljelad, Sven, and Catherine S. Fowler
1986 Owens Valley Paiute. In *Handbook of North American Indians, Volume 11: Great Basin*, edited by W.L. d'Azevedo, pp. 412-434. Smithsonian Institution, Washington, D.C.

Lyneis, Margaret M., David L. Weide, and Elizabeth vonTill Warren
1980 *Impacts: Damage to Cultural Resources in the California Desert.* Bureau of Land Management, Riverside, California.

Mehringer, Peter J., Jr.
1986 Prehistoric Environments. In *Handbook of North American Indians 11: Great Basin*, edited by Warren L. D'Azevedo, pp. 31-50. Smithsonian Institution, Washington, D.C.

Nadeau, Remi A.
1950 *The Water Seekers.* Chalfant Press, Bishop, California.

Portillo, Gath, and Richard Weaver
1980 Archaeological Reconnaissance Report for William Symons, Jr. – Piute Creek Hydroelectric Power Development. Ms. on file, Inyo National Forest, Bishop, California.

Shedd, Kim
1002 "The Tungsten Industry in the USA," in *Outlook for Tungsten Production and Applications in the 21st Century*, 9th International Tungsten Symposium, Pittsburgh, Pennsylvania, pp 8-10. International Tungsten Industry Association.

Steward, Julian H.
1930 Irrigation without Agriculture. *Papers of the Michigan Academy of Science, Arts, and Letters* 12:149-156.

1933 Ethnography of the Owens Valley Paiute. *University of California Publications in American Archaeology and Ethnology* 34(5):355-440. Berkeley.

1934 Two Paiute Autobiographies. *University of California Publications in American Archaeology and Ethnology* 33:428-438. Berkeley.

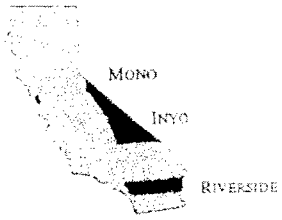
1938 Basin-Plateau Aboriginal Sociopolitical Groups. *Bureau of American Ethnology Bulletin* 120. Smithsonian Institution, Washington, D.C.

Wildesen, Leslie E.
1982 The Study of Impacts on Archaeological Sites. In *Advances in Archaeological Method and Theory* 5, edited by Michael B. Schiffer, pp. 51-96. Academic Press, New York.

Wright, J. W. A.
1879 The Owens River War and the Cement Hunters. In *San Francisco Daily Evening Post*, November 8 and 22.

Appendix A
Results of CHRIS Records Search

CALIFORNIA
HISTORICAL
RESOURCES
INFORMATION
SYSTEM



Eastern Information Center
Department of Anthropology
University of California
Riverside, CA 92521-0418

Phone (909) 787-5745
Fax (909) 787-5409

July 30, 2004
RS #3192

Jeff Burton
Trans-Sierran Archaeological Research
332 East Mabel Street
Tuscon, Arizona 85705

Re: Cultural Resources Records Search for the White Mountain Estates Project

Dear Mr. Burton:

We received your request on July 23, 2004 for a cultural resources records search for the White Mountain Estates project located in Section 22, T.5S, R.33E, MDBM, in the Chalfant Valley area of Mono County. We have reviewed our site records, maps, and manuscripts against the location map you provided.

Our records indicate that no cultural resources studies have been conducted within the project area nor within a one-half-mile radius of your project area. Two studies provide overviews of cultural resources in the general project vicinity. These reports are listed on the attachment entitled "Archeological Reports" and are available upon request at 15¢/page plus $30/hour. The KEYWORD section of each citation lists the geographic area, quad name, listing of trinomials (when identified), report number in our manuscript files (MN #), and the number of pages per report.

No cultural resources properties are recorded within the boundaries of the project area nor within a one-half-mile radius of the project area.

Additional sources of information consulted are identified below.

National Register of Historic Places (10/15/03): no listed properties are located within the boundaries of the project area.

Office of Historic Preservation, Archaeological Determinations of Eligibility (02/03/04): no listed sites are located within the boundaries of the project area.

Office of Historic Preservation, Directory of Properties in the Historic Property Data File (02/03/04): no listed properties are located within the boundaries of the project area.

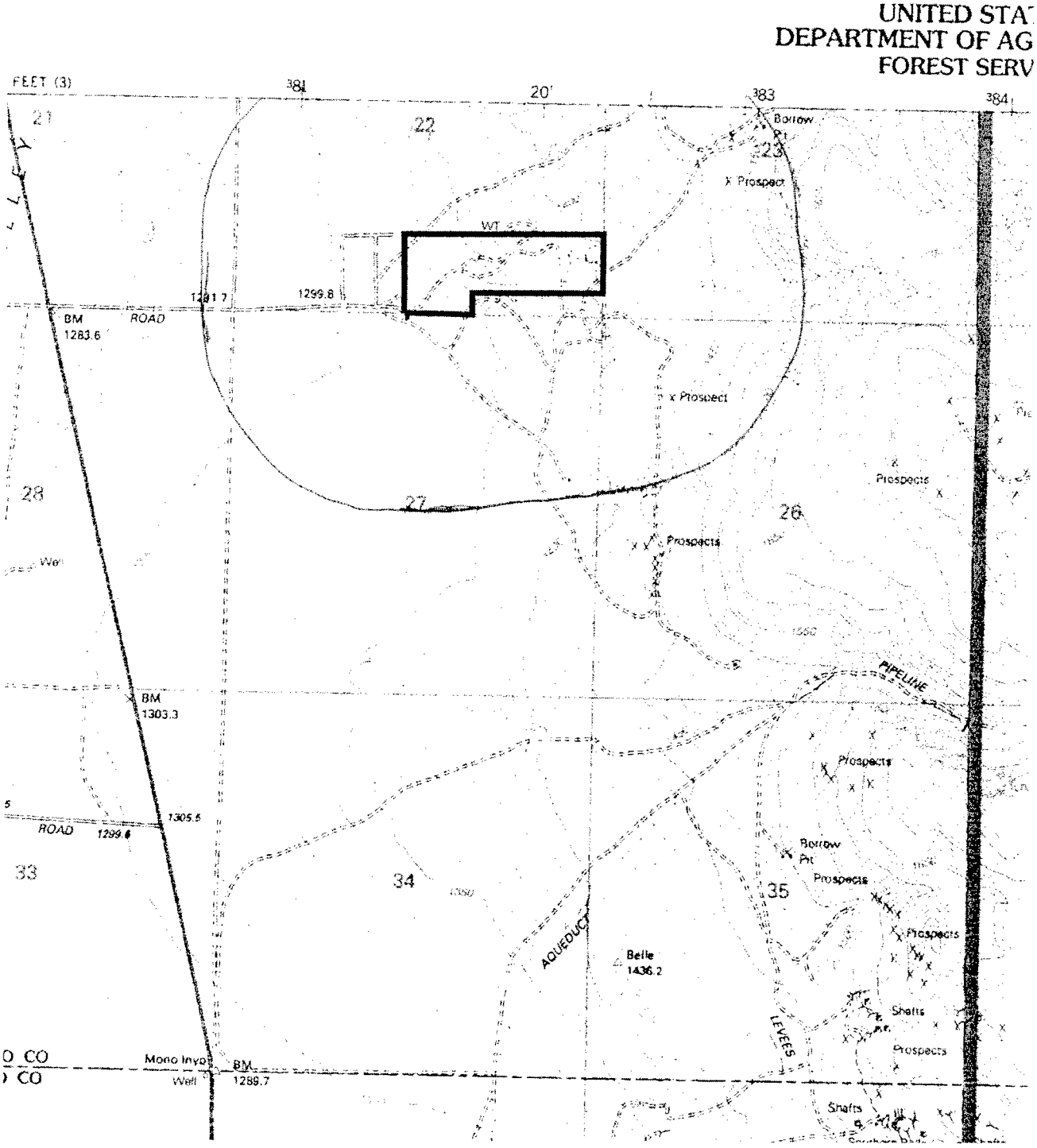
A copy of the 1949 USGS Bishop 15' topographic maps is included for your reference.

As the Information Center for Mono County, it is necessary that we receive a copy of all cultural resources reports and site information pertaining to this county in order to maintain our map and manuscript files. Confidential information provided with this records search regarding the location of cultural resources outside the boundaries of your project area should not be included in reports addressing the project area.

Sincerely,

Farah Firtha
Information Officer

Enclosures



White Mtn Estates Survey Area (from USGS 7.5' map Laws, California).

0.5 0 0.5 1 Miles

Boundary.shp

N

Document No.: 1080621 Unpublished Report
BUSBY, COLIN, J.M. FINDLAY, AND J.C. BARD

1979 A CULTURE RESOURCE OVERVIEW OF THE BUREAU OF LAND MANAGEMENT COLEVILLE, BODIE, BENTON, AND OWENS VALLEY PLANNING UNITS, CALIFORNIA PLUS AN ANNOTATED ANTHROPOLOGICAL AND HISTORIC BIBLIOGRAPHY. GREAT BASIN ASSOCIATES. SUBMITTED TO BLM. UNPUBLISHED REPORT ON FILE AT UCR, EASTERN INFORMATION CENTER, RIVERSIDE, CA 92521.

Last Update: 12/05/2001 Cataloged by: WOR-CA-04 on 10/21/1988
Keywords: MF #0507 (6), 651 PP (7), OVERVIEW-NO ACREAGE SURVEYED (4), ANTHROPOLOGICAL & HISTORIC BIBLIOGRAPHY (4), INYO AND MONO COUNTIES (7)

Document No.: 1084158 Dissertation/Thesis
HANEY, JEFFERSON W.

1992 WRITTEN IN BEDROCK: PREHISTORIC ACORN USE IN THE EASTERN SIERRA NEVADA. M.A. THESIS. SONOMA STATE UNIVERSITY, CA; (CULTURAL RESOURCES MANAGEMENT).

Last Update: 04/19/2004 Cataloged by: WRO-CA-04 on 05/07/1992
Keywords: MN-0566 & IN-0276 (MF #3745)_ (6), 229 PP (7), NO ACREAGE SURVEYED (4)

Appendix B
Archaeological Site Survey Records
– not for public distribution –